## Secret

X and Y are best friends and they love to chat with each other. But their recent concerns about the privacy of their messages has distant them. So they decided to encrypt their messages with a key, K, such that the character of their messages are now shifted K times towards right of their initial value. Their techniques only convert numbers and alphabets while leaving special characters as it is. Provided the value K you are required to encrypt the messages using their idea of encryption.

## **INPUT FORMAT**

The first line contains N and K(no of characters in the message and key foren cryption). The next line contains the message.

## **OUTPUT FORMAT**

Output the encrypted messages on a new line.

Note1: Consider alphabets a...z and A...Z, digits 0...9.

Note2:While shifting if it reaches z or Z or 9, then continue shifting from a or A or 0.

Runtime Input: 12 4 Hello-World!

Output :Lipps-Asvph!







